

## **REMARKS**

This response addresses the issues raised by the Examiner in the Office Action mailed December 9, 2003. Initially, Applicants would like to thank the Examiner for the careful consideration given in this case. The Claims were 1-2. Claims 1 and 2 have been canceled and Claims 3-8 have been added. Thus, Claims 3-8 are pending in this case all to more clearly and distinctly claim Applicants' invention. New Claims 3-8 introduce no new matter and are fully supported by the specification. Applicants respectfully request entry of the amendments as they place the application in condition for allowance or in better condition for possible appeal.

New Claim 3 has been added to incorporate the language of previous claims 1 and 2. More specifically, Claim 3 claims a method of producing a dry analytical element comprising a water-impermeable transparent support, at least one water-permeable layer, and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order, which comprises supplying an organic solvent having both hydrophilic and hydrophobic characteristics onto the spreading layer to coat the surface of the polyester fibers with the organic solvent, and then supplying a reagent solution while leaving the organic solvent on the surface. Support for new Claim 3 appears, for example, in the specification at page 7, lines 2-3.

New Claim 4 depends appropriately from new Claim 3 and introduces no new matter. Support for using the lower alcohol containing 1 to 4 carbon atoms or a ketone as the organic solvent as claimed in Claim 4 may be found on page 7, lines 3-5 of the specification. New Claim 5 depends appropriately from new Claim 3 and introduces no new matter. Support for the organic solvent supplied in an amount of 30 to 90% of the spreading layer by volume as claimed in Claim 5 may be found on page 7, lines 7-9 of the specification. New Claim 6

depends appropriately from new Claim 3 and introduces no new matter. Support for the spreading layer with the amount of the organic solvent coating of 0.1 to 5 % of the supplied amount after the organic solvent is dried as claimed in Claim 6 may be found on page 7, lines 14-16 of the specification. New Claim 7 depends appropriately from new Claim 3 and introduces no new matter. Support for using an organic solvent as the solvent of the reagent solution as claimed in Claim 7 may be found on page 8, lines 2-7 of the specification. New Claim 8 depends appropriately from new Claim 3 and introduces no new matter. Support for using ethanol or acetone as the organic solvent as claimed in Claim 6 may be found on page 7, line 20 of the specification. Accordingly, it is respectfully submitted that no new matter has been added by the amendments.

**Rejection Based On Terashima Under 35 U.S.C. § 102 (b)**

The Examiner rejects previously pending Claims 1-2 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent 4,900,665 to Terashima et al. as applied to new Claim 3. Applicants respectfully traverse this rejection.

The Examiner asserts that Terashima discloses a multilayer analytical element that comprises a water impermeable transparent support, at least one water-impermeable layer and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order. The Examiner further asserts that Terashima teaches coating the surface of fiber constituting the spreading layer with an organic solvent and then supplying a reagent solution on the spreading layer. Applicants respectfully disagree.

To establish obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. MPEP § 2143.03. Terashima discloses an integral

multilayer analytical element including a porous spreading layer containing a self-developing substrate, a buffer layer and a buffering agent and a support layer. However, Terashima does not disclose, teach or suggest supplying a reagent solution on the spreading layer. Instead, Terashima discloses applying a self-developing substrate dissolved in an organic solvent so as to not be brought in contact with the buffering agent. See Col. 8, lines 23-25. The self-developing substrate is applied dissolved in the organic solvent in the process of Terashima. See Col. 7, lines 50-53 and Col. 8, lines 23-25.

In contrast, the present invention claims a method of producing a dry analytical element comprising a water-impermeable transparent support, at least one water-permeable layer, and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order. An organic solvent is supplied having both hydrophilic and hydrophobic characteristics onto the spreading layer to coat the surface of the polyester fibers with the organic solvent, and then supplying a reagent solution while leaving the organic solvent on the surface. This coating treatment with an organic solvent permits a reagent to penetrate easily into the bottom of the polyester fabric and achieves uniform inclusion of the reagent in the fabric. As a result, not only the coefficient of variation can be improved by virtue of decrease of coloring unevenness, but also coloring strength is enhanced.

Further, Terashima does not disclose coating the surface of polyester fiber with an organic solvent prior to supplying a reagent solution nor teaches any advantage to doing this. Thus, Terashima does not disclose each and every claim element of the claimed invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 102 (b) be reconsidered and withdrawn.

**Rejection Based On Kitajima Under 35 U.S.C. § 102 (b)**

The Examiner rejects Claims 1-2 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent 4,292,272 to Kitajima et al. as applied to new Claim 3. Applicants respectfully traverse this rejection.

The Examiner asserts that Kitajima discloses a multilayer analytical element that comprises a water impermeable transparent support, at least one water-impermeable layer and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order. The Examiner further asserts that Kitajima teaches to coat the surface of fiber constituting the spreading layer with an organic solvent and supplying a reagent solution on the spreading layer. Applicants respectfully disagree.

Applicants respectfully disagree with the Examiner. To establish obviousness of a claimed invention, all claim elements must be disclosed, taught or suggested by the prior art. MPEP § 2143.03. Kitajima discloses a integral multilayer analysis element comprising a transparent support, an indicator layer, a liquid permeation barrier layer, a reagent layer and a spreading layer, adhesively laminated in this order. The Examiner asserts that Kitajima discloses using a organic solvent to coat the spreading layer in col. 8, lines 45-50 and col. 3 lines 34-38. But Kitajima discloses processing a cotton broadcloth in a 1 % gelatin aqueous solution to provide fabric to be employed as a liquid sample spreading layer at col. 8, lines 45-50. So Kitajima does not teach using an organic solvent to coat the spreading layer. Further, in the paragraph that includes col. 3, lines 34-38, Kitajima discloses producing a spreading layer by applying an organic solvent solution containing diatomaceous earth where the organic solution is removed completely by drying. See Col. 3, lines 12-21 and Col. 3, lines 21-27. This is unlike the present invention, where the organic solvent coated onto the surface of fiber constituting the spreading layer is not completely removed. Further, Kitajima

teaches incorporating reagents into the spreading layer not applying a reagent solution on top of the organic solvent coated spreading layer. See Col. 7, lines 46-56.

As stated above, the present invention claims a method of producing a dry analytical element comprising a water-impermeable transparent support, at least one water-permeable layer, and a spreading layer which is composed of polyester fibers and has a function of spreading liquid uniformly, laminated in this order. An organic solvent is supplied having both hydrophilic and hydrophobic characteristics onto the spreading layer to coat the surface of the polyester fibers with the organic solvent, and then supplying a reagent solution while leaving the organic solvent on the surface. This coating treatment with an organic solvent permits a reagent to penetrate easily into the bottom of the polyester fabric and achieves uniform inclusion of the reagent in the fabric. As a result, not only the coefficient of variation can be improved by virtue of decrease of coloring unevenness, but also coloring strength is enhanced.

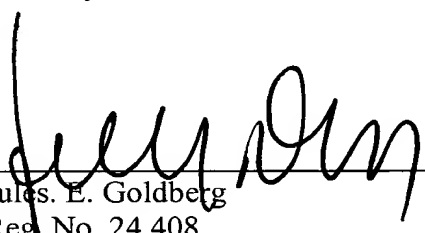
Further, Kitajima does not teach to coat the surface of polyester fiber with an organic solvent prior to supplying a reagent solution nor teaches any advantage to doing this. Thus, Kitajima does not disclose each and every claim element of the claim amended invention. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 102 (b) be reconsidered and withdrawn.

In view of the remarks presented herein, it is respectfully submitted that the present application is in condition for final allowance and notice to such effect is requested. If the Examiner believes that additional issues need to be resolved before this application can be passed to issue, the undersigned invites the Examiner to contact him at the telephone number provided below.

Respectfully submitted,

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By



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